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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/693,370	10/19/2000	Brent Bilger	BILG-400	8637
26379	7590	08/17/2004	EXAMINER	
GRAY CARY WARE & FREIDENRICH LLP 2000 UNIVERSITY AVENUE E. PALO ALTO, CA 94303-2248			PHAM, THOMAS K	
			ART UNIT	PAPER NUMBER
			2121	

DATE MAILED: 08/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/693,370	<b>Applicant(s)</b> BILGER, BRENT	
	<b>Examiner</b> Thomas K Pham	<b>Art Unit</b> 2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-18 and 20-23 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-17 and 23 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-10, 18 and 20-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/03/04</u> . | 6) <input type="checkbox"/> Other: _____  |

**Response to Amendments**

1. Claims 1-4, 6-18 and 20-23 of U.S. Application 09/693,370 are presented for reconsideration.
2. Applicant's arguments, see the last paragraph of page 12, filed 5/03/2004, with respect to claims 11-17 and 23 have been fully considered and are persuasive. The rejection of claims 11-17 and 23 has been withdrawn.
3. Claims 11-17 and 23 are allowed.
4. Applicant's arguments with respect to claims 1-4, 6-10, 18 and 20-22 have been considered but are moot in view of the new ground(s) of rejection.

**Quotations of U.S. Code Title 35**

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

### **Claim Rejections - 35 USC § 103**

9. Claims 1-4, 18 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,621,662 ("Humphries") in view of U.S. Patent No. 4,608,674 ("Guscott").

#### **Regarding claim 1**

Humphries teaches a room occupancy sensor for a home automation system having a controller that monitors occupancy of rooms in a home (col. 13 line 66 to col. 14 line 14 "if a motion detector ... to notify the police"), the occupancy sensor comprising: a sensor for detecting motion in a room, the sensor having a sensitivity to the motion for triggering the room occupancy sensor (col. 13 lines 32-51, "A zone 52 is ... a pathway to the house 6"), a device for measuring ambient room temperature (col. 5 lines 36-43, "a temperature sensor for use ... the sensor is located") but does not teach the sensitivity is adjusted in response to the measured ambient room temperature. However, Guscott teaches an ultrasonic motion detector wherein the sensitivity is adjusted in response to ambient atmospheric condition sensors including measurement of the ambient room temperature (col. 1 lines 49-62, "Range is stabilized by ... atmospheric-induced range variation") for the purpose reducing the faulty occupancy detection of the motion sensor due to changes in the ambient atmospheric conditions. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the

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sensitivity adjustment of Guscott with the system of Humphries because it would provide for the purpose reducing the faulty occupancy detection of the motion sensor due to changes in the ambient atmospheric conditions.

**Regarding claims 2 and 4**

Guscott teaches the sensitivity is increased as the ambient room temperature increases (col. 7 line 65 to col. 8 line 3, “If the gain of the ... is greater than nominal”).

**Regarding claim 3**

Humphries teaches a home automation system for a home having a plurality of rooms, the system comprising: a plurality of controlled objects for placement in rooms (col. 13 line 66 to col. 14 line 14 “if a motion detector ... to notify the police”); a plurality of room motion sensors for placement in the rooms to detect occupancy by a person therein (col. 13 lines 32-40, “A zone 52 is ... by a distinct zone 52.”); and a controller for controlling the controlled objects in response to detected occupancy by the plurality of room motion sensors (col. 4 lines 45-58, “The home automation system ... be on the network.”); wherein at least one of the room motion sensors includes: a sensor for detecting motion in one of the rooms, the sensor having a sensitivity to the motion for triggering the room occupancy sensor (col. 13 lines 32-51, “A zone 52 is ... a pathway to the house 6”), and a device for measuring ambient room temperature (col. 5 lines 36-43, “a temperature sensor for use ... the sensor is located”) but does not teach a device for measuring ambient room temperature, wherein the sensitivity is adjusted in response to the measured ambient room temperature. However, Guscott teaches an ultrasonic motion detector wherein the sensitivity is adjusted in response to ambient atmospheric condition sensors including measurement of the ambient room temperature (col. 1 lines 49-62, “Range is stabilized

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by ... atmospheric-induced range variation”) for the purpose reducing the faulty occupancy detection of the motion sensor due to changes in the ambient atmospheric conditions. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the sensitivity adjustment of Guscott with the system of Humphries because it would provide for the purpose reducing the faulty occupancy detection of the motion sensor due to changes in the ambient atmospheric conditions.

**Regarding claim 18**

Humphries teaches a method of automated control of a plurality of controlled objects placed in a plurality of rooms in a home (col. 13 line 66 to col. 14 line 14 “if a motion detector ... to notify the police”), wherein a plurality of room motion sensors are placed in the rooms to detect occupancy by a person therein (col. 13 lines 32-40, “A zone 52 is ... by a distinct zone 52.”), the method comprising the steps of: controlling the controlled objects in response to detected occupancy by the plurality of room motion sensors (col. 4 lines 41-58, “a home automation system ... be on the network.”); and measuring ambient room temperature (col. 15 lines 10-16, “a user may set ... with the HVAC unit 79”) but does not teach adjusting a sensor trigger sensitivity of at least one of the room motion sensors in response to the measured ambient room temperature. However, Guscott teaches an ultrasonic motion detector wherein the sensitivity is adjusted in response to ambient atmospheric condition sensors including measurement of the ambient room temperature (col. 1 lines 49-62, “Range is stabilized by ... atmospheric-induced range variation”) for the purpose reducing the faulty occupancy detection of the motion sensor due to changes in the ambient atmospheric conditions. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the sensitivity adjustment

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of Guscott with the system of Humphries because it would provide for the purpose reducing the faulty occupancy detection of the motion sensor due to changes in the ambient atmospheric conditions.

**Regarding claim 22**

Humphries teaches a method of automated control of a plurality of controlled object placed in a plurality of rooms in a home (col. 13 line 66 to col. 14 line 14 “if a motion detector ... to notify the police”), wherein a plurality of room motion sensors for placement in the rooms to detect occupancy by a person therein (col. 13 lines 32-40, “A zone 52 is ... by a distinct zone 52.”) the plurality of rooms are separated by doorways which include a plurality of sensors for detecting movement of a person therethrough (col. 13 lines 32-51, “A zone 52 is ... to the house 6”), the method comprising: controlling the controlled objects in response to detected occupancy by the plurality of room motion sensors (col. 4 lines 41-58, “a home automation system ... be on the network.”) but does not teach adjusting a sensor trigger sensitivity of at least one of the room motion sensors in response to detected occupancy by at least one of the room motion sensors; and adjusting a sensor trigger sensitivity of at least one of the room motion sensors in response to the home parameter determined by the status sensor. However, Myron teaches adjusting a sensor trigger sensitivity of at least one of the room motion sensors in response to detected occupancy and to the home parameter determined by the motions and status sensors (col. 11 lines 49-62, “In any space that is ... auto-adjust timer is reset 203”). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the motion and status sensors of Myron with the home automation system of Humphries because it would provide for



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adjusting the sensitivity of the sensors in order to send the most accurate information back to the main controller of the system.

10. Claims 6-8, 10 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,621,662 (“Humphries”) in view of U.S. Patent No 5,640,143 (“Myron”).

**Regarding claim 6**

Humphries teaches a home automation system for a home having a plurality of rooms separated by doorways, wherein each room has at least one of the doorways associated therewith, the system comprising: a plurality of controlled objects for placement in rooms (col. 13 line 66 to col. 14 line 14, “if a motion detector ... to notify the police”); a plurality of room motion sensors for placement in the rooms to detect occupancy by a person therein (col. 13 lines 40-51, “a first security zone 52 ... a pathway to the house 6”); and a controller for controlling the controlled objects in response to detected occupancy by the plurality of room motion sensors (col. 4 lines 41-58, “a home automation system ... should be on the network”); wherein at least one of the room motion sensors includes a sensor for detecting motion in one of the rooms, the sensor having a sensitivity to the motion for triggering the room occupancy sensor (col. 13 lines 32-51, “A zone 52 is ... a pathway to the house 6”) but does not teach the sensitivity is adjustable in response to signals from the controller. However, Myron teaches the sensitivity is adjustable in response to signals from the system microcontroller 14 (col. 11 lines 45-62, “If the load is still powered ... auto-adjust timer is reset 203”) for the purpose of providing both signal filtering and algorithmic control of the load. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the sensitivity adjustment of Myron with the

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system of Humphries because it would provide for the purpose of providing both signal filtering and algorithmic control of the load.

**Regarding claim 7**

Myron teaches the occupancy sensor, wherein the sensitivity is adjusted in response to detected motion by the sensor (col. 11 lines 49-60, “In any space that is ... sensitivity slowly and conservatively”).

**Regarding claim 8**

Humphries teaches the home automation system with a plurality of entry/exit sensors for placement in doorways to detect movement of a person therethrough (col. 13 lines 32-51, “A zone 52 is defined ... pathway to the house 6”). Myron teaches the occupancy sensor, wherein the sensitivity is adjusted in response to detected movement by at least one of the entry/exit sensors (col. 11 lines 8-10, “A sensor which is ... the load by itself” and col. 11 lines 49-52, “In any space that is ... to reduce the sensitivity greatly”).

**Regarding claim 10**

Humphries teaches the home automation system with at least one status sensor for determining a parameter of the home (col. 11 lines 15-26, “Since each hardware ... sensor is located.”). Myron teaches the occupancy sensor sensitivity is adjusted in response to the determined parameter by the sensor (col. 11 lines 8-10, “A sensor which is ... the load by itself” and col. 11 lines 49-52, “In any space that is ... to reduce the sensitivity greatly”).

**Regarding claim 20**

Humphries teaches a method of automated control of a plurality of controlled object placed in a plurality of rooms in a home (col. 13 line 66 to col. 14 line 14 “if a motion detector ... to notify

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the police”), wherein a plurality of room motion sensors for placement in the rooms to detect occupancy by a person therein (col. 13 lines 32-40, “A zone 52 is ... by a distinct zone 52.”) the plurality of rooms are separated by doorways which include a plurality of entry/exit sensors for detecting movement of a person therethrough (col. 13 lines 32-51, “A zone 52 is ... to the house 6”), controlling the controlled objects in response to detected occupancy by the plurality of room motion sensors (col. 4 lines 41-58, “a home automation system ... be on the network.”) but does not teach adjusting a sensor trigger sensitivity of at least one of the room motion sensors in response to detected occupancy by at least one of the room motion sensors; and adjusting a sensor trigger sensitivity of at least one of the room motion sensors in response to detected movement by at least one of the plurality of entry/exit sensors. However, Myron teaches adjusting a sensor trigger sensitivity of at least one of the room motion sensors in response to detected occupancy or movement by at least one of the plurality of sensors including motions and entry/exit (col. 11 lines 8-10, “A sensor which is ... the load by itself” and col. 11 lines 49-52, “In any space that is ... to reduce the sensitivity greatly”) for the purpose reducing the faulty occupancy detection by using an array of different sensors providing data to a central controller. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the array of sensors of Myron with the system of Humphries because it would provide for the purpose reducing the faulty occupancy detection by using an array of different sensors providing data to a central controller.

11. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Humphries in view of Myron and further in view of Japanese Patent no. 06230144 (“Shimizu”).

**Regarding claim 9**

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Humphries and Myron teaches the home automation system with sensitivity adjustment of the sensors in response to detected occupancy but do not teach at least one spot sensor for placement in one of the rooms to detect occupancy by a person in a specific location within the one room. However, Shimizu teaches at least one spot sensor for placement in one of the rooms to detect occupancy by a person in a specific location within the one room (fig. 1a, elements A and B) for the purpose detecting occupancy in a room with limited space so as the sensors ranges not to overlap each other. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the spot sensors of Shimizu with the systems of Humphries and Myron because it would provide for the purpose detecting occupancy in a room with limited space so as the sensors ranges not to overlap each other.

12. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Humphries in view of Myron and further in view of Shimizu.

**Regarding claim 21**

Humphries teaches a method of automated control of a plurality of controlled object placed in a plurality of rooms in a home (col. 13 line 66 to col. 14 line 14 “if a motion detector ... to notify the police”), wherein a plurality of room motion sensors for placement in the rooms to detect occupancy by a person therein (col. 13 lines 32-40, “A zone 52 is ... by a distinct zone 52.”) the plurality of rooms are separated by doorways which include a plurality of sensors for detecting movement of a person therethrough (col. 13 lines 32-51, “A zone 52 is ... to the house 6”), the method comprising: controlling the controlled objects in response to detected occupancy by the plurality of room motion sensors (col. 4 lines 41-58, “a home automation system ... be on the network.”) but does not teach adjusting a sensor trigger sensitivity of at least one of the room

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motion sensors in response to detected occupancy by at least one of the room motion sensors; and adjusting a sensor trigger sensitivity of at least one of the room motion sensors in response to detected occupancy by the plurality the spot sensor. However, Myron teaches adjusting a sensor trigger sensitivity of at least one of the room motion sensors in response to detected occupancy or movement by at least one of the plurality of sensors including motions (col. 11 lines 8-10, “A sensor which is ... the load by itself” and col. 11 lines 49-52, “In any space that is ... to reduce the sensitivity greatly”) for the purpose reducing the faulty occupancy detection by using an array of sensors providing data to a central controller. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the array of sensors of Myron with the system of Humphries because it would provide for the purpose reducing the faulty occupancy detection by using an array of sensors providing data to a central controller. Furthermore, Shimizu teaches at least one spot sensor for placement in one of the rooms to detect occupancy by a person in a specific location within the one room (fig. 1a, elements A and B) for the purpose detecting occupancy in a room with limited space so as the sensors ranges not to overlap each other. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the spot sensors of Shimizu with the system of Humphries because it would provide for the purpose detecting occupancy in a room with limited space so as the sensors ranges not to overlap each other.

### ***Response to Arguments***

In response to applicant arguments that “The sensor’s microcontroller is not a controller that controls controlled objects, as recited in claim 6”, Examiner disagrees because the

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microcontroller 14 of Myron is not just to control the sensitivity of the sensor but also controlling the controlled objects (see fig. 2, element 13 and col. 4 lines 34-37, "This stage then affects ... a status indicator, etc.") because this microcontroller is the heart of the whole detection system (see col. 4 lines 41-48, "The microprocessor 14 is the ... compact printed circuit board layout").

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner *Thomas Pham*; whose telephone number is (703) 305-7587 or the new number (571) 272-3689 beginning on October 2004, Monday - Friday from 8:00 AM - 5:00 PM EST or contact Supervisor *Mr. Anthony Knight* at (703) 308-3179 (or 571 272-3687 starting Oct. 2004).

Any response to this office action should be mailed to: **Commissioner for Patents, P.O. Box 1450, Alexandria VA 22313-1450**. Responses may also be faxed to the **official fax number (703) 872- 9306**.

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**Thomas Pham**  
*Patent Examiner*

TP

August 12, 2004

  
**Anthony Knight**  
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